

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-7 (Canceled).

Claim 8 (Previously Presented): An induction furnace comprising:  
a side wall comprising vertical side-by-side segments,  
wherein the segments are coated with ceramic at least on inner faces and side faces,  
and at least sharp edges joining said inner faces to said side faces are rounded.

Claim 9 (Previously Presented): An induction furnace as in claim 8, further  
comprising a hearth on which the side wall is positioned, wherein the hearth is provided with  
cooling boxes coated with ceramic at least on upper faces, and at least sharp edges delimiting  
said upper faces are rounded.

Claim 10 (Currently Amended): ~~A crucible for an~~ An induction furnace as in claim 8,  
wherein the segments are further coated with ceramic on outer faces.

Claim 11 (Previously Presented): An induction furnace as in claim 9, wherein the  
cooling boxes are further coated with ceramic on lower faces and side faces.

Claim 12 (Previously Presented): An induction furnace as in claim 8, wherein the  
segments comprise lugs for assembly with an upper flange, and the upper flange is coated  
with ceramic at least on one face touching the segments.

Claim 13 (Previously Presented): An induction furnace as in claim 9, wherein the faces of the segments and cooling boxes that are coated with ceramic are joined together by rounded or chamfered edges.

Claim 14 (Previously Presented): An induction furnace as in claim 8, wherein the ceramic is chosen from among mullite, alumina, cordierite, zircon, zirconia, and zirconate.